

CLAIMS

1. A receiver for receiving a data signal from a reference transmitter and a
 2 non-reference transmitter, wherein the reference transmitter covers the
 transmitted data signal using a reference cover and the non-reference
 4 transmitter covers the transmitted data signal using a non-reference cover, the
 receiver comprising:

6 at least one antenna, for receiving the data signal;
 for each of said at least one antenna, a sampler for sampling the data
 8 signal received through the corresponding antenna and producing received
 samples;

10 a recorelator for recorelating said received samples using the non-
 reference cover and the reference cover to produce recorelated samples; and

12 a cover equalizer for performing cover equalization using said received
 samples and said recorelated samples.

2. A method for receiving a data signal from a reference transmitter and a
 2 non-reference transmitter, wherein the reference transmitter covers the
 transmitted data signal using a reference cover and the non-reference
 4 transmitter covers the transmitted data signal using a non-reference cover, the
 method comprising:

6 receiving the data signal through at least one antenna;
 sampling the data signal received through each of said at least one
 8 antenna to produce received samples;

10 recorelating said received samples using the non-reference cover and
 the reference cover to produce recorelated samples; and

12 performing cover equalization using said received samples and said
 recorelated samples.

3. A computer readable media embodying a method for receiving a data
 2 signal from a reference transmitter and a non-reference transmitter, wherein the
 reference transmitter covers the transmitted data signal using a reference cover

4 and the non-reference transmitter covers the transmitted data signal using a
 non-reference cover, the method comprising:
 6 receiving the data signal through at least one antenna;
 sampling the data signal received through each of said at least one
 8 antenna to produce received samples;
 recorrelating said received samples using the non-reference cover and
 10 the reference cover to produce recorrelated samples; and
 performing cover equalization using said received samples and said
 12 recorrelated samples.

4. A remote station apparatus comprising:
 2 means for receiving the data signal through at least one antenna;
 means for sampling the data signal received through each of said at least
 4 one antenna to produce received samples;
 means for recorrelating said received samples using the non-reference
 6 cover and the reference cover to produce recorrelated samples; and
 means for performing cover equalization using said received samples
 8 and said recorrelated samples.